

The opinion in support of the decision being entered  
today was not written for publication and  
is not binding precedent of the Board.

Paper No. 14

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte FRANK D. EGITTO, MICHAEL A. GAYNES,  
RAMESH R. KODNANI,  
LUIS J. MATIENZO and MARK V. PIERSON

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Appeal No. 2003-2014  
Application No. 09/757,185

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ON BRIEF

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Before GARRIS, WARREN, and PAWLIKOWSKI, Administrative Patent  
Judges.

GARRIS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal which involves claims 11-13  
and 26-29. The only other claims remaining in the application,  
which are claims 14, 15 and 25, stand objected to by the examiner  
but otherwise allowable.

The subject matter on appeal relates to a method for bonding which comprises bonding a heat sink to an overmold surface with silicon-containing residue thereon by applying a porous polymer film impregnated with epoxy adhesive between the heat sink and the surface of the overmold. Further details of this appealed subject matter is set forth in representative independent claim 11 which reads as follows:

1. A method for bonding comprising the steps of:

providing a molded polymer molded to a substrate, wherein the molded polymer comprises an overmold, and wherein the overmold has a surface with silicon-containing residue thereon;

bonding an article to the surface of the overmold by applying a porous polymer film between the article and the surface of the overmold, wherein the film is impregnated with epoxy adhesive, and wherein the article comprises a heat sink; and

heat curing the impregnated film so that a bond strength between the heat sink and the surface of the overmold is greater than a bond strength between the overmold and the substrate.

The prior art set forth below is relied upon by the examiner as evidence of obviousness:

Korleski, Jr. (Korleski)	5,879,794	Mar. 09, 1999
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Appellants' Admitted Prior Art, specification, pages 1-3; page 6, lines 18-24; and page 13, lines 14-17.

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All of the appealed claims are rejected under 35 U.S.C. § 103(a) as being unpatentable over the admitted prior art in view of Korleski.

We refer to the brief and reply brief and to the answer for a thorough discussion of the opposing viewpoints expressed by the appellants and by the examiner concerning the above noted rejection.

#### OPINION

This rejection cannot be sustained for the reasons set forth below.

A prima facie case of obviousness under § 103 requires a suggestion for the modification proposed by the examiner and a reasonable expectation that the proposed modification would be successful. In re O'Farrell, 853 F.2d 894, 903, 7 USPQ2d 1673, 1680-81 (Fed. Cir. 1988).

According to the examiner, it would have been obvious for one having an ordinary level of skill in this art to modify the admitted prior art method for bonding a heat sink to an overmold surface with silicon-containing residue thereon by replacing the

unsuccessful adhesives used in the applied prior art with the adhesive-filler film composite of Korleski. We agree with the appellants, however, that neither the applied prior art nor Korleski whether considered alone or in combination contains any teaching or suggestion that patentee's adhesive-filler film composite would successfully bond a heat sink to an overmold surface with silicon-containing residue thereon. That is, the record before us contains no evidence that the adhesive composite of Korleski would be successful where the adhesives of the admitted prior art were unsuccessful in the admitted prior art bonding method.

Significantly, the examiner does not dispute the appellants' position on this matter. To the contrary, the examiner agrees that "Korleski is silent toward the film bonding [of] a heat sink to an overmold with a silicon-containing residue" but stresses that " however it is noted that it is unclear how Applicant overcomes [sic] the weak bond in the admitted prior art caused by the silicon-containing residue" (answer, page 6; bolding deleted). The examiner then goes on to state that "Applicant has shown no unexpected results in using the claimed adhesive to bond

to the overmold with the silicon-containing residue and absent any showings of unexpected results one skilled in the art would have readily appreciated using known adhesive techniques to attach heat sinks to an object from which heat needs to be dissipated, especially the adhesive techniques in Korleski that yield stronger adhesion" (answer, page 7). This viewpoint of the examiner is not well taken for a number of reasons.

First, the examiner appears to be not correct in stating that "it is unclear how Applicant overcomes [sic] the weak bond in the admitted prior art caused by the silicon-containing residue" (id., page 6). In this regard, we direct the examiner's attention to the last paragraph on page 13 of the subject specification wherein the appellants teach that "because the more preferred film [of their invention] is porous and provides lateral dispersion of air pockets, an adequately strong and heat conductive bond may be formed" (lines 20-21). Regardless, it is not a requirement of patentability that an inventor correctly set forth, or even know, how or why the invention works. Diamond Rubber Co. v. Consolidated Rubber Tire Co., 220 U.S. 428, 435-36 (1911).

Secondly and more importantly, the examiner has improperly allocated the burden of persuasion in this case. Contrary to the examiner's apparent belief, the initial burden is not appellants to show unexpected results but rather on the examiner to establish a prima facie case of obviousness. In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992) Only if the examiner's burden is met does the burden then shift to an applicant to come forward with evidence or arguments of nonobviousness. Id. Here, the evidence adduced by the examiner fails to establish a prima facie case of obviousness.

As previously indicated, this is because the applied prior art contains no teaching or suggestion, based upon a reasonable expectation of success, for using the adhesive-filler film composite of Korleski in the admitted prior art method of bonding a heat sink to an overmold surface with silicon-containing residue thereon. At best, therefore, the examiner's obviousness conclusion is fatally based upon the improper "obvious to try" standard. In re O'Farrell, 853 F.2d at 903, 7 USPQ2d at 1681.

It follows that we cannot sustain the examiner's § 103 rejection of claims 11-13 and 26-29 as being unpatentable over the admitted prior art in view of Korleski.

OTHER ISSUES

We observe that appealed dependent claim 28 recites "the heat sink comprises a material selected from the group consisting of anodized aluminum and chromated aluminum." While page 2 of the subject specification indicates that aluminum is frequently used as a heat sink material, we do not find written description support in the specification disclosure for the claim 28 requirement that the aluminum be anodized or chromated. In this regard, it is appropriate to emphasize that we reviewed the appellants' amendment filed October 16, 2002 (i.e., paper no. 4), which first submitted this claimed subject matter, but find therein no identification of written description support for the subject matter in question.

As a consequence, the examiner and the appellants should consider whether the above-described subject matter of appealed dependent claim 28 complies with the written description requirement set forth in the first paragraph of 35 U.S.C. § 112. If not in compliance, claim 28 should be rejected by the examiner under the first paragraph of § 112 or should be modified by the appellants (i.e., amended or canceled) so as to eliminate the non-compliant subject matter.

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Conclusion

The decision of the examiner is reversed.

REVERSED

BRADLEY R. GARRIS	)	
Administrative Patent Judge	)	
	)	
	)	
	)	BOARD OF PATENT
CHARLES F. WARREN	)	APPEALS AND
Administrative Patent Judge	)	INTERFERENCES
	)	
	)	
	)	
BEVERLY A. PAWLIKOWSKI	)	
Administrative Patent Judge	)	

BRG/vsh



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